EKSTRAKSI, KARAKTERISASI, DAN PEMURNIAN MINYAK BIJI GAMBAS (*Luffa acutangula* Linn.)

EXTRACTION, CHARACTERIZATION, AND PURIFICATION OF RIDGE GOURD SEED OIL (Luffa acutangula Linn.)

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ABSTRACT

The objectives of this research were to determine the yield of rendement, characterization of physicochemical properties and composition of ridge gourd seed oil (Luffa acutangula Linn.) before and after purification. Ridge gourd seed oil obtained by maceration method. Physico chemical properties were determined based on SNI 01-3555-1998, while the composition of ridge gourd seed oil was determined using GC-MS. The extraction yield of ridge gourd seed oil was obtained 21.40±0.04% (db). The three main components that make up ridge gourd seed oil before and after purification are the same: squalene, methyl palmitate, and methyl oleate. The results of characterization of physico chemical properties of ridge gourd seed oil before and after purification experience discoloration, increase of density, and decrease in water content, acid number, peroxide number, and saponification number.

Keywords: Degumming, GC-MS, neutralization, physico chemical properties, ridge gourd seed oil

ABSTRAK

Penelitian ini bertujuan menentukan hasil rendemen, karakterisasi sifat fisiko kimia dan komposisi penyusun minyak biji gambas (*Luffa acutangula* Linn.) sebelum dan sesudah pemurnian. Minyak biji gambas diperoleh dengan metode maserasi. Sifat fisiko kimia ditentukan bedasarkan SNI 01-3555-1998, sedangkan komposisi penyusun minyak biji gambas ditentukan dengan menggunakan *GC-MS*. Rendemen ekstraksi minyak biji gambas yang diperoleh sebesar 21,40±0,04% (bk). Tiga komponen utama yang menyusun minyak biji gambas sebelum dan sesudah pemurnian sama yaitu skualena, metil palmitat, dan metil oleat. Hasil karakterisasi sifat fisiko kimia minyak biji gambas sebelum dan sesudah pemurnian mengalami perubahan warna, peningkatan massa jenis, dan mengalami penurunan pada kadar air, bilangan asam, bilangan peroksida, dan bilangan penyabunan.

Kata kunci: *Degumming*, *GC-MS*, minyak biji gambas, netralisasi, sifat fisiko kimia